

Year	Pesticide(s) (b)	Narrative
Case Reports Received by the California Pesticide Illness Surveillance Program, 1982 - 2005		
In Which Health Effects Were Evaluated as Definitely, Probably, or Possibly Related (a) to		
Exposure to Pesticides Exempt from FIFRA Registration, Alone or In Combination with Other Pesticides		
Year	Pesticide(s) (b)	Narrative
1997	Citric acid	While cleaning a shower, a housekeeper accidentally sprayed the disinfectant in her left eye. She immediately flushed the eye with water before her supervisor took her to a doctor. Since she used a consumer product, eye protection is not required.
1998	Citric acid	After cleaning the bathroom with a disinfectant, an employee reported developing symptoms and sought medical attention. He is currently out on indefinite disability because of a bad back.
2005	Citric acid	A winery employee mixed citric acid with hot water. As he scrubbed mold from the outside of the wine tanks, he smelled a strong odor & developed symptoms. He called his supervisor who immediately had him taken to see a doctor.
2005	Citric acid	A drop of sanitizer flicked into a school custodian's right eye as he replaced the bottle's spray top after cleaning a bathroom. The investigation does not clearly document training status or requirement for eye protection.
1996	Citronella	A sales clerk was exposed to mosquito repellant when a customer sprayed some of the product into the air. He sought medical attention the next day as a precaution.
1997	Citronella	A worker applied an insect repellant on her skin. Later that day, she then developed symptoms. She was unsure what kind of repellant she used, but remembered it had oil of citronella in it. She sought medical attention 4 days later.
2001	Clove oil	As a homeowner sprayed an aerosol organic insecticide around his porch, the cap blew off the container and sprayed the insecticide into his face. He immediately washed his face and flushed out his eyes. He sought medical attention later that day.
2000	Not determined, abamectin, adjuvant, fenhexamid, garlic, sulfur, thiram	A strawberry harvester sought medical attention for a rash on his chest. The investigator asked the employer about him 25 days later and learned he had was no employed and no one knew of a contact point.
1998	Not determined, adjuvant, cymoxanil, mancozeb, maneb, manganese sulfate, permethrin, zinc	While riding to work, a field worker noticed an odor from a pesticide application to a potato field. The odor lingered in the adjacent vineyard for several hours while he suckered grapevines. He became ill 3 hours later & saw a doctor the next day.
1994	Not determined, adjuvant, garlic, mancozeb	Residents of a trailer park were disturbed by the odor of an application to an adjacent potato field. Drift was not observed. Three residents sought medical attention including a young girl with a pre-existing bronchitis condition. See 94-306 & 307.
1994	Not determined, adjuvant, garlic, mancozeb	See 94-299.
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1990	Not determined, capsaicin, garlic	Fieldworker was exposed to bird repellent from an aerial (fixed) application made 1/4 mile away from the lettuce field she was harvesting. Many of the fieldworkers left the lettuce field with throat and eye irritation.
1987	Not determined, chlorine, citric acid, phosphoric acid	Man was exposed to chlorine fumes while working inside a trailer. A custodian mixed a chlorine solution in an acidic drain cleaning bucket resulting fumes were trapped inside the truck trailer.
1991	Not determined, citric acid, decanoic acid, octanoic acid, phosphoric acid	A worker was sanitizing milking equipment with a closed transfer system. A hose on the system failed and shot the sanitizer into his right eye. He rinsed the eye for 20 minutes and was taken to the doctor. He did not wear eye protection (nov issued).
1993	Not determined, citric acid, decanoic acid, octanoic acid, phosphoric acid	Upon opening a spray proportioner, the spray exploded onto the worker's face and body. He was preparing to hook up the spray proportioner to a hose and clean a stainless steel vat. He had done this job many times and never had the contents explode.
1995	Not determined, citric acid, decanoic acid, octanoic acid, phosphoric acid	A churn operator is periodically exposed to chemical odors from chemicals used to clean and sanitize the equipment. He was suffering from bronchitis and he feels the odor made it worse.

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2003	Not determined, citric acid, decanoic acid, octanoic acid, phosphoric acid	As a winery employee tried to pump a disinfectant into another bucket for mixing, some of the chemical splashed onto some pooled rainwater on the bucket lid and splashed into his eyes. He failed to wear the label-required eye protection.
2000	Not determined, citric acid, metabisulfite	A winery employee disinfected bungholes on wine barrels located above his head. The disinfectant solution dripped onto his arms. When he lowered his arms, the solution ran down inside his gloves and contacted his hands.
1989	Not determined, citric acid, phosphoric acid	She experienced burning and itching on here eyes and face after a sanitizer leaked on her while she was cleaning a floor drain. She was wearing goggles and rubber gloves. The leak in the pipe was due to a faulty connection. Diagnosis-contact dermatitis t
1990	Not determined, citric acid, phosphoric acid	While filling bottles of cleaning solution the dispensing tube slipped off the bottle and spilled on ehr hand causing a rash. Not wearing gloves or goggles. Diagnosis-chemical 2 degree burn.
1991	Not determined, citric acid, phosphoric acid	While cleaning and disinfecting a room, a housekeeper's beeper fell from his pocket and into the bucket containing the disinfectant. This caused the disinfectant to splash up into his right eye. He was not wearing eye protection (nov issued).
1992	Not determined, citric acid, phosphoric acid	Housekeeper splashed disinfectant into right eye during room cleaning. Nov issued for no eye protection.
1992	Not determined, citric acid, phosphoric acid	A bottle of disinfectant hit ground causing material to splash in housekeeper's eyes on impact. She picked up bottle by sprayer top when incident occurred.most housekeepers unscrew top and pour it when using it. Nov issued for no eye protection/inadeq tr
1992	Not determined, citric acid, phosphoric acid	As a custodian cleaned bathroom floors, he mixed unauthorized chemicals together and created fumes. He inhaled the fumes and developed symptoms. He immediately went to the doctor.
1993	Not determined, citric acid, phosphoric acid	Some spray drifted into a worker's eyes while she was cleaning showers of a fitness center. She washed her face and rinsed her eyes out, but her eyes became progressively more irritated over a period of several days. She failed to wear eye protection.
1993	Not determined, citric acid, phosphoric acid	Worker was cleaning a spa with a disinfectant. The spray bottle leaked onto her hands. She tried to fix the sprayer. She washed her hands because they were burning. Her skin was still scarred four months later. See 93-1737 and 1738 for co-workers.
1993	Not determined, citric acid, phosphoric acid	56-la-93. Seven housekeepers of a retirement board and care home became ill after some one apparently mixed ajax with an acidic disinfectant. Nov for inadequate training. See also 93-1506-1510, 1648.
1993	Not determined, citric acid, phosphoric acid	56-la-93. See 93-1505.
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1993	Not determined, citric acid, phosphoric acid	Worker was cleaning and disinfecting a spa when she got the disinfectant on her left index finger. She did not wear hand protection. Her finger began burning immediately and became progressively worse. She showed her supervisor two days later.
1993	Not determined, citric acid, phosphoric acid	Worker cleaned a spa with a new disinfectant. The product caused his hands to peel. He failed to wear hand protection. Similar problems occurred to two other workers (93-1374 and 1737) using the same disinfectant.

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1994	Not determined, citric acid, phosphoric acid	A housekeeper was washing a bathtub with a disinfectant when some of it splashed in her right ear. She felt her ear plug with fluid. She reported the injury the next day. Her supervisor refused to send her to a doctor. She saw a doctor 11 days later.
1995	Not determined, citric acid, phosphoric acid	A housekeeper was refilling a disinfectant bottle when she splashed some of the product on her face and into her eyes. She immediately flushed her eyes with water. She failed to wear eye protection (a violation).
1995	Not determined, citric acid, phosphoric acid	A housekeeper splashed a disinfectant into her left eye while cleaning/disinfecting bathroom shower walls. She immediately flushed the eye with water, but still developed symptoms. She saw a doctor the next day. She did not wear eye protection.
1995	Not determined, citric acid, phosphoric acid	A hotel maid was spraying a bathroom with a disinfectant cleaner when she accidentally sniffed it. She believes she swallowed some as well. She developed a stomach ache and sought medical attention.
1996	Not determined, citric acid, phosphoric acid	A house cleaner developed burns on her forearms after cleaning bathroom walls and shower stalls with a disinfecting solution. She sought medical attention later that day. She was not wearing hand protection.
1997	Not determined, citric acid, phosphoric acid	A housekeeper sprayed a sanitizer in a bathroom to clean it. She inhaled the fumes and developed respiratory problems. She would leave the bathroom to catch her breath, then return to work. She did not wear the available mask and gloves.
1998	Not determined, citric acid, phosphoric acid	A motel housekeeper splashed a disinfectant onto her face while cleaning a bathroom floor. She washed the exposed area, but the spot became irritated and continued to deteriorate until she sought medical treatment 19 days later.
1999	Not determined, citric acid, phosphoric acid	When a hotel housekeeper sprayed a bathroom mirror with a disinfectant, some of it splashed back into her right eye. She saw a doctor within 2 hours. Afterwards, her supervisor bought goggles for the housekeepers to wear while handling chemicals.
2000	Not determined, citric acid, phosphoric acid	After a hotel housekeeper cleaned showers with a disinfectant, her supervisor noticed a rash on her right hand and sent her to the doctor for medical evaluation. She failed to wear eye and hand protection while using the disinfectant.
2001	Not determined, citric acid, phosphoric acid	A hotel employee developed symptoms over the weekend after working with a disinfectant, a deodorizer and a glass cleaner. She sought medical attention after reporting her symptoms on Monday. She is not aware of any exposure incidents.
2002	Not determined, citric acid, phosphoric acid	A cafe employee dropped a disinfectant spray bottle causing the disinfectant to splash into a co-worker's eyes. The co-worker then flushed out her eyes. The investigator confirmed the occurrence, but could not locate anyone familiar with the details.
2002	Not determined, citric acid, phosphoric acid	As a housekeeper poured a disinfectant into a small spray bottle, some of the concentrate spilled on her hands and forearms. She subsequently developed a rash. She failed to wear the employer supplied and label required rubber gloves.
2002	Not determined, citric acid, phosphoric acid	While pouring a disinfectant into a spray bottle, a hotel housekeeper splashed some into her left eye. She immediately reported to her supervisor who sent her to the doctor for evaluation. She failed to wear the label-required eye protection.
2003	Not determined, citric acid, phosphoric acid	A house cleaner developed symptoms while using a sanitizer to clean a bathroom. She informed her manager 2 weeks later. She saw a doctor a month after the event. Her employer had not known of the requirements for pesticide safety training.
2003	Not determined, citric acid, phosphoric acid	While preparing to clean showers at a sports complex, a janitor filled his spray bottle before putting on goggles. The bottle slipped from his hand. He bent to catch it and the sanitizer splashed into his eyes. He immediately flushed his eyes with water.
2003	Not determined, citric acid, phosphoric acid	While cleaning a restroom, a pregnant hotel employee inhaled cleaner/disinfectant fumes and developed a sore throat. Being pregnant, she became concerned about inhaling the fumes so she sought medical attention as a precaution.
2004	Not determined, citric acid, phosphoric acid	A hotel housekeeper cleaned the bathroom wall in a guest room with a disinfectant cleaner. As she rinsed the wall with water, she splashed liquid into her left eye. She waited 2 days before seeking medical attention. She failed to wear eye protection.

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2004	Not determined, citric acid, phosphoric acid	While cleaning a bathroom, a hotel housekeeper inadvertently sprayed a dilute sanitizer into her left eye. She reported her injury the next day. The investigator interviewed the hotel assistant manager who provided the information.
2004	Not determined, citric acid, phosphoric acid	As a retirement community housekeeper cleaned an apartment toilet, the spray mechanism on the disinfectant container broke causing the disinfectant to splatter into her face and left eye. She saw a doctor within 2 hours for treatment.
2004	Not determined, citric acid, phosphoric acid	A hotel housekeeper picked up a disinfectant bottle from her bucket of cleaning/disinfecting agents and somehow sprayed the disinfectant into her right eye. She immediately flushed her eye out and sought medical attention.
2005	Not determined, citric acid, phosphoric acid	As a housekeeper cleaned and disinfected a bathtub, she splashed the disinfectant cleaner into her left eye. The next day, she reported the incident to her supervisor who sent for her to a doctor. She failed to wear the label-required eye protection.
2005	Not determined, citric acid, phosphoric acid	As a housekeeper carried the disinfectant container in her hand, the bathroom door bumped her and she dropped the container, which released some of the liquid into her left eye. She immediately rinsed her eye with water and sought medical attention.
1993	Not determined, citric acid, phosphoric acid, quaternary ammonia	A housekeeper uses a collection of different chemicals (including two disinfectants) for room cleaning. She did not wear gloves while cleaning. Her hands and fingers developed skin problems. She began wearing gloves, but the problems persisted.
1995	Not determined, citric acid, phosphoric acid, quaternary ammonia	While preparing to clean hotel rooms, a housekeeper mixed two disinfectants together in a bucket. The resulting chemical reaction created fumes that caused her to develop symptoms. She immediately sought medical attention.
1992	Not determined, citric acid, phosphoric acid, sodium hypochlorite	A housekeeper sprayed sodium hypochlorite on a bathroom floor. to get a better cleaning job she sprayed a disinfectant over the same area before mopping. The resulting fumes from the mixture caused her to become ill.
1992	Not determined, citric acid, phosphoric acid, sodium hypochlorite	Housekeeper mixed bleach and germicidal detergent together to clean floors. the mixture of both products created vapors which she inhaled and caused her to vomit and cough. She reported it and was taken to a physician
1996	Not determined, citric acid, phosphoric acid, sodium hypochlorite	When an employee came into work, a co-worker asked her to smell a chemical mixture in a bucket. Upon smelling the chemical mixture, she immediately developed symptoms. She reported to her supervisor, who sent her to a doctor.
1997	Not determined, citric acid, phosphoric acid, sodium hypochlorite	A custodian inhaled fumes from a mixture of disinfectant bowl cleaner and bleach. He found the bucket in the storage room. He developed symptoms and was taken to the hospital, evaluated and released.
1997	Not determined, citric acid, phosphoric acid, sodium hypochlorite	While cleaning a classroom, a school janitor mixed a dilute disinfectant with bleach. The mixture created fumes which she inhaled. She developed symptoms and immediately sought medical attention.
2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. A salad processing facility shut down when 13 employees developed symptoms. Possible causes include paint fumes, chlorine fumes from the water & carbon monoxide (co). Tests revealed elevated levels of co. See 2002-1250 to 1254 & 1736 - 1742.
2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. See 2002-1249. This employee rotated between 2 jobs inside the plant. He developed symptoms in the early afternoon. He could not recall smelling any strange odor. He elected to go to the hospital when he saw 2 women sick.
2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. See 2002-1249. This employee worked inside the packing facility dumping lettuce totes onto a conveyor belt when he smelled an odor. He experienced symptoms a few hours later. An ambulance transported him to the hospital.
2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. See 2002-1249. As this employee worked near a large fan inside the packing facility making boxes, she noticed a chlorine odor and experienced symptoms. She reported her symptoms to her employer the next day because she felt worse.
2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. See 2002-1249. This employee worked inside the packing facility dumping lettuce totes onto a conveyor belt when he developed symptoms. He denies any contact with the chlorinated water or smelling anything unusual, except for a paint smell.

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2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. See 2002-1249. This employee worked at the end of a packing line inside the packing facility. She smelled something strong, but could not identify the odor. She developed symptoms a few hours later & transported by ambulance to the hospital.
2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. See 2002-1249. This employee closed full boxes on a conveyor belt. Three hours after her arrival, she started experiencing irritant symptoms. She smelled nothing unusual. The company safety officer transported her to a medical clinic.
2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. See 2002-1249. This employee made boxes outside of the plant. When she brought them inside, she noticed an odor. Around noon, she developed symptoms. The company safety officer took her to a medical clinic for treatment.
2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. See 2002-1249. This employee packed salad near a fan inside the packing facility when she started to feel ill. She noticed an odor but could not describe it. The company safety officer took her to a medical clinic.
2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. See 2002-1249. This employee made boxes at the entrance of the packing facility and worked on the packing line inside the facility when she smelled an odor. She later developed symptoms. Her supervisor took her to a medical clinic.
2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. See 2002-1249. This employee drove a forklift and tied boxes. He noticed a chlorine odor and developed symptoms around noon. As the day progressed his symptoms worsened so his employer took him to a hospital.
2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. See 2002-1249. This employee packed salad on the packing line when she noticed an unusual odor. Around noon, she developed symptoms. When her symptoms worsened, the company safety officer took her to a medical clinic.
2002	Not determined, citric acid, sodium hypochlorite	67-sbn-02. See 2002-1249. This employee performs quality control inside the facility. She noticed a strange odor and later developed symptoms. Upon request, she rechecked the water chlorine levels, which she found to be below normal.
2003	Not determined, citric acid, sodium hypochlorite	While inserting plastic bags inside packing cartons in a cherry packing building, she noted an odor. Her eyes began to burn and she developed dizziness, nausea and a headache. She sought medical attention that afternoon.
2003	Not determined, citric acid, sodium hypochlorite	While keeping boxes moving along a packing line, packer picked up some spilled tomatoes and dumped them into the wash tank at the beginning of the processing line. Upon hitting the water, the tomatoes splashed the chlorinated water into his left eye.
2001	Not determined, clove oil, sesame oil	A retail store employee dropped an aerosol insecticide can. The nozzle popped off allowing the insecticide to spray into his eyes. He developed symptoms and immediately sought medical attention.
1990	Not determined, edta, essential oils, isopropyl alcohol, phenolic disinfectants, sodium carbonate, sodium lauryl sulfate	Nurse was using a disinfectant to clean a gurney. She splashed some of the material into her eye. Investigation states that she felt no irritation or discomfort, but sought medical attention as a precaution. Dr. diagnosed chemical conjunctivitis.
2004	Not determined, eugenol, hydroperene, phenylethyl propionate, piperonyl butoxide, pyrethrins, bromadiolone, disodium octaborate tetrahydrate, sulfluramid	As an instructor worked with disabled adults preparing silverware for tables in a restaurant, she noticed a uniformed man spraying an aerosol in the air. She smelled an odor and became ill 10 minutes later. The spco applied several pesticides that day.
1997	Not determined, lactic acid, sodium chloride	While dipping ziplock bags into a disinfecting solution, an asthmatic animal technician began having difficulty breathing. She sought medical attention that evening when her breathing difficulty continued.
1984	Not determined, permethrin, zinc	Child playing near crop duster developed rash.
1995	Not determined, pine oil, rotenone, sulfonated castor oil, triethanolamine oleate	Resident bathed her dog with flea dip and inhaled the fumes. The dog died and necropsy results showed it inhaled a foreign material. The resident developed symptoms and went to the emergency room where she was treated with inhalers.
1990	Not determined, potassium permanganate, sodium hypochlorite, sodium lauryl sulfate, trisodium phosphate	While mopping the corner of a floor, the disinfectant solution splashed into her left eye. Wearing a uniform, rubber boots and gloves, but no eye protection. Diagnosis-chlorine burn to left eye. Training records also inadequate.

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2005	Not determined, potassium peroxymonosulfate, sodium chloride	Animal handling facilities require all employees to disinfect the sole of their booties when they enter and exit the facility. This person also applied the disinfectant to the hood and then developed symptoms. She immediately sought medical attention.
2001	Oil of peppermint	A hospital maintenance employee treated a room for ants with a peppermint oil insecticide. A radiologist detected the fragrance in the room and developed symptoms. He immediately sought medical attention. He stated he is sensitive to fragrances.
2004	Oil of peppermint	An employee mistakenly faced an aerosol can the wrong way as he prepared to spray some ants and sprayed himself in the face. He developed respiratory symptoms and sought medical attention the next morning.
1989	Putrescent whole egg solids	1 day after making application, worker developed sore eye. Chemical keratitis diagnosed. No documented exposure. No mention of eye protection.
(a) A relationship of Definite indicates that both physical and medical evidence document exposure and consequent health effects.		
Probable relationship indicates that limited or circumstantial evidence supports a relationship to pesticide exposure		
Possible relationship indicates that evidence neither supports nor contradicts a relationship		
(b) When any or all of a list of pesticides may have contributed to a case, the list begins with the entry 'Not Determined'		
A pesticide name at the beginning of a list indicates that evidence pointed to that pesticide as the causal factor.		